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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,347	02/19/2002	Christopher J. Tatar	FS-00689	1368
7055	7590	07/27/2006	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			SHARMA, RASHMI K	
			ART UNIT	PAPER NUMBER
			3651	

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/076,347	TATAR ET AL.	
	Examiner	Art Unit	
	Rashmi K. Sharma	3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 24-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 24-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
6) <input type="checkbox"/> Other: _____ |
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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9, 14, 15, 22, 24, 25 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Sykes (US Patent number 2,993,583).

Sykes discloses an apparatus and method for diverting packages comprising a frame member (115) having a frame entrance (Figure 18, area between first set of right and left frame members 115, first and second frame members) and a plurality of frame exits (Figure 18, area between the second set of right and left frame members as well as through each right and left exit towards the conveyors 116 and 117, third and fourth frame members) adapted for use with an existing conveyor system (107, 116 and 117) for transporting an item in an original direction, at least one of the frame exits being perpendicular to the frame entrance (see Figure 18), a movable bi-directional diverting mechanism extending from the frame member (112), the movable diverting mechanism movable perpendicularly to the original direction of travel of the item being transported on the conveyor (107) and diverting the item in either a first

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direction or a second opposing direction with respect to the first direction, the movable diverting mechanism includes a single downwardly extending movable blade mechanism (110) extending from the fifth frame member (112) moving within the frame to divert the item in either the first direction or the second opposing direction, the movable diverting mechanism is configured to remain stationary so that the item can pass therethrough (read column 1 lines 20-30), the blade mechanism (110) having first and second surfaces adapted for diverting the item and a longitudinal axis whereby the first and second surfaces face opposing directions or exits substantially perpendicularly to the original direction of travel of the item and the longitudinal axis is substantially parallel to the original direction of travel of the item and extending in a direction between the entrance and another of the exits, a moving mechanism including an actuator (113, 114) and a glide mechanism or a mounting mechanism (111) coupled to the blade mechanism (110) whereby the glide mechanism (111) extends across a frame member (112) for moving the movable diverting mechanism between opposing exits of the plurality of exits, a plurality or series of sensors (read column 18) for monitoring or controlling actions of the downward extending movable blade member (110), the sensors including a home sensor (136) for detecting a home position and a second or new home position (read claim 4) of the movable diverting mechanism, at least one over travel sensor (131R, 131L) for detecting an over travel position of the movable diverting mechanism, at least one sensor (126R, 126L) for detecting a flow of the items, an over current sensor (28R, 28L) for determining whether a current associated with the actuator (113,

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114) exceeds a threshold limit (read claim 43), wherein an excessive current associated with the actuator indicates that the existing conveyor system should be stopped, momentary contacts (136R, 136L) associated with a control box (29) arranged on the frame which provide an input signal or control signals received from the controller to control the movement of the movable diverting mechanism and wherein the movable diverting mechanism is capable of remaining in a static position allowing the item to pass through the package divert mechanism while moving along the original direction (read column 1 lines 20-36, column 2 lines 28-36, column 12 lines 31-35, Figures 11-17 and column 13 lines 3-5).

Sykes also discloses a first leg and a second leg forming the entrance (Figure 18, area between first set of right and left frame members 115), a third leg and the first leg forming a first exit orthogonal to the entrance, a fourth leg and the second leg forming a second exit being orthogonal to the entrance (Figure 18, area between both right and left exit towards the conveyors 116 and 117) and the third leg and the fourth leg forming a third exit (Figure 18, area between second set of frame members 115 downstream on conveyor 107) being in alignment with the entrance.

Sykes also includes the method of diverting an item based on the control system and structural limitations discussed above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sykes (US Patent number 3,993,583) in view of Torbet et al. (U.S. Patent number 3,246,733).

Sykes as disclosed above, fails to show hoods.

Torbet et al. does disclose a hood (26) having openings whereby the hoods are positioned at an entrance and each exit of the frame (see Figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the safety hoods of Torbet's invention to that of Sykes diverting mechanism in order to provide for a safety feature for the conveyor system arrangement and a safer environment for the employee's working with the conveyor system.

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Claims 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sykes (US Patent number 3,993,583) in view of Torbet et al. (U.S. Patent number 3,246,733) and Bonnet (US Patent number 6,189,702).

Sykes as disclosed above, fails to explicitly show a control system determining information from the item and predetermines a diverting direction for the item.

Bonnet does disclose a control system determining information from the item and predetermines a diverting direction for the item (read column 11 lines 19-37, column 13 lines 52-58 and column 14 lines 1-12).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace Sykes control system with the control system of Bonnet's invention in order to provide for a conveyor system arrangement having a more sophisticated control system in order to more efficiently sort items to their correct destinations.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sykes (US Patent number 3,993,583) in view of Torbet et al.

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(U.S. Patent number 3,246,733) and further in view of Cramer (U.S. Patent number 6,036,128).

Sykes as modified by Torbet et al., fails to disclose a safety hood comprising an interlock switch for detecting a position of the hoods and providing a signal to a controller for shutting down movement of the movable diverting mechanism when any of the hoods are in an upright position or positioning each safety hood at each exit and entrance via hinges.

Cramer does disclose an interlock switch located for a hood assembly (please read column 3 lines 57-67 and column 4 lines 1-11) and a hinge (31).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the interlocking switch as taught by Cramer to the safety hood of Sykes as modified by Torbet et al., in order to provide for an automated mechanical stop of the conveyor system for additional safety for when a worker needs to inspect within the hooded area of the conveyor system arrangement.

It also would have been obvious to one having ordinary skill in the art at the time the invention was made to position a separate safety hood at each entrance and exit of Sykes invention as a matter of design choice and user preference.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sykes (US Patent number 3,993,583) in view of Bonnet (US Patent number 6,189,702).

Sykes fails to explicitly show a photosensor.

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Bonnet does disclose a photosensor (202).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sykes' sensor to be a photosensor as taught by Bonnet as they are considered to be functionally equivalent to one another. Utilizing a variety of sensors within a conveyor arrangement is considered to be well known in the art.

Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Sykes (US Patent number 3,993,583) in view of Lutz (US Patent number 6,769,536).

Sykes as disclosed above fails to disclose a modular conveyor frame.

Lutz does disclose a modular conveyor frame (see Abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sykes' frame members to be a modular as taught by Lutz in order to provide for adjustable frame members within the conveying system. Providing for frame adjustability within conveyor systems allows for flexibility, portability as well as many other features, depending on the user's needs.

Claims 11, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sykes (US Patent number 3,993,583) in view of Bonnet (US Patent number 6,189,702).

Sykes fails to explicitly show a control system determining information from the item and predetermining a diverting direction for the item wherein the item is moved with the movable diverting mechanism in the first direction based

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on a first control signal and in the second direction based on a second control signal.

Bonnet does disclose a control system determining information from the item and predetermines a diverting direction for the item (read column 11 lines 19-37, column 13 lines 52-58 and column 14 lines 1-12) wherein the item is moved with the movable diverting mechanism in the first direction based on a first control signal and in the second direction based on a second control signal.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace Sykes control system with the control system of Bonnet's invention in order to provide for a conveyor system arrangement having a more sophisticated control system in order to more efficiently sort items to their correct destinations.

Response to Arguments

Applicant's arguments with respect to claims 1-22 and 24-29 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that Sykes fails to show a diverter mechanism remaining in a static position allowing the item to pass through it, however this is not the case. In the above rejection, there are numerous columns and lines referenced to show exactly this claim limitation.

Applicant also argues that Sykes fails to show suspension of the movement of the diverting mechanism based on at least one of the limitations listed in claim 22 lines 3-6, however this is not the case. Sykes clearly discloses

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the suspension of the movement of the diverting mechanism wherein a "detection of an item exceeding a threshold physical characteristic limit". The Examiner contends that a "threshold physical characteristic limit" can be construed as the physical contact with the item and a limit switch, relay etc., wherein the item is not diverted and passes through the diverting mechanism, thereby suspending movement of the diverting mechanism.

Claim 12 as rejected above, clearly meets Applicant's claim limitations. Applicant argues that Torbet's housings are not hoods and that the hoods are not positioned at an entrance and exit of the frame. However, Applicant is incorrect. Hood as defined by Merriam-Webster's Collegiate Dictionary 10th Edition is: *a cover for parts of mechanisms*. Applicant fails to limit the structure of the hoods therefor Torbet's housing clearly meets this claim limitation. Regarding Torbet's hoods not being positioned at an entrance and exit is incorrect as well, as can be clearly seen in Figures 1 and 3.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, hoods over conveyor systems are extremely well known in the art.

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Regarding claims 13 and 27, once again Applicant fails to understand that the Examiner is not relying on Sykes, but is relying on Bonnet to meet the limitation of "a control system that determines information from the item and predetermines a diverting direction for the item".

The above rejection clearly shows each and every claim limitation with regard to claim 16, utilizing Bonnet as well.

Regarding claim 10, Lutz does indeed disclose a modular or adjustable frame and the motivation to combine this reference with Sykes in addition to the above recited motivation is in the fact that modular conveyor frames are extremely well known in the art. Module as defined by Merriam-Webster's Collegiate Dictionary 10th Edition is: *any in a series of standardized units for use together*. Applicant fails to limit the structure of the module, thereby Lutz's adjustable modules (38 & 40) clearly meets this claim limitation. Once again Applicant fails to understand that the Examiner is not relying on Lutz, but is relying on Sykes to meet the limitation of the series of sensors listed in claim 10.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is

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filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rashmi K. Sharma whose telephone number is 571-272-6918. The examiner can normally be reached on Monday-Thursday.

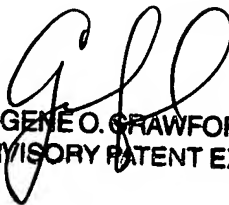
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

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Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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GENE O. CRAWFORD
SUPERVISORY PATENT EXAMINER